

# Free boundary problems: viscosity and variational approaches

Palermo, July 25 - 26, 2024

Special Session in **Joint Meeting AMS-UMI 2024**

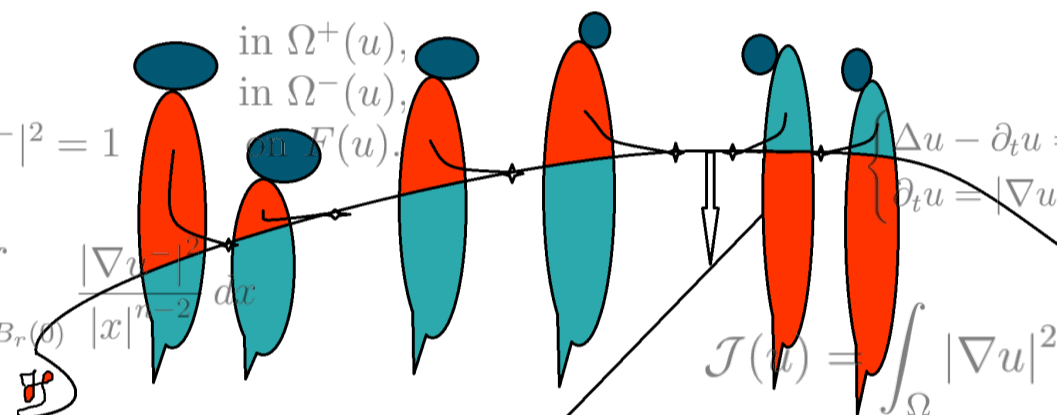
Palermo, July 23 - 26, 2024

<https://umi.dm.unibo.it/jm-umi-ams/>

$$\begin{cases} \Delta_G u = 0 & \text{in } \Omega^+(u), \\ \Delta_G u = 0 & \text{in } \Omega^-(u), \\ |\nabla_G u^+|^2 - |\nabla_G u^-|^2 = 1 & \text{on } F(u). \end{cases}$$

$$\begin{cases} \Delta u - \partial_t u = f & \text{in } (\Omega \times [0, T]) \cap \{u > 0\}, \\ \partial_t u = |\nabla u|^2 & \text{on } (\Omega \times [0, T]) \cap \partial\{u > 0\}, \end{cases}$$

$$J_u(r) = \frac{1}{r^4} \int_{B_r(0)} \frac{|\nabla u^+|^2}{|x|^{n-2}} dx \int_{B_r(0)} \frac{|\nabla u^-|^2}{|x|^{n-2}} dx$$

$$\mathcal{J}(u) = \int_{\Omega} |\nabla u|^2 + \lambda_+ \chi_{\{u > 0\}} + \lambda_- \chi_{\{u \leq 0\}} dx$$


## Speakers

**Isabeau Birindelli**  
Sapienza Università di Roma, Italy

**Donatella Danielli**  
Arizona State University, USA

**Serena Dipierro**  
University of Western Australia, Australia

**Nicolò Forcillo**  
Michigan State University, USA

**Nicola Garofalo**  
Università di Padova, Italy

**Roberto Ognibene**  
Università di Pisa, Italy

**Claudia Lederman**  
University of Buenos Aires and CONICET, Argentina

**Diego Moreira**  
Universidade Federal do Ceará, Brazil

**Stefania Patrizi**  
University of Texas at Austin, USA

**Daniel Restrepo**  
Johns Hopkins University, Baltimore, USA

**Susanna Terracini**  
Università di Torino, Italy

**Giorgio Tortone**  
Università di Pisa, Italy

**Enrico Valdinoci**  
University of Western Australia, Australia

**Stefano Vita**  
Università di Torino, Italy

More info



Supported by



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA  
DIPARTIMENTO DI MATEMATICA

iNSAM  
GNAMPA

Organizers

Daniela De Silva

Columbia University and Barnard College, USA

Fausto Ferrari

Università di Bologna, Italy